

This species was included by Count Salvadori as of likely occurrence in Borneo; but the present is the first authentic instance of the bird having been shot in the island.

MELANOPELARGUS EPISCOPUS (Bodd.).

Melanopelargus episcopus, Salvad. *t. c.* p. 356.

Láwas river (*coll. Treacher*).

LEPTOPTILUS JAVANICUS (Horsf.).

Leptoptilus javanicus, Salvad. *t. c.* p. 358.

Mr. Low sends two eggs along with the head of the old female. The eggs are pale greenish blue; axis 2·7 inches, diam. 1·95 inch.

SULA PISCATRIX (L.).

Sula piscatrix, Salvad. *t. c.* p. 368.

Láwas river (*coll. Treacher*).

A young bird, with the wings clipped. The first specimen, however, which I saw from Borneo was a young bird given to the Museum by Governor Ussher from Sandakan.

XXI.—*Notes on a Collection of Birds' Skins and Eggs made by Mr. D. Gill, F.R.A.S., on Ascension Island.* By F. G. PENROSE.

My friend Mr. Gill went to Ascension for astronomical purposes during the months from July 1877 to January 1878, especially to observe the opposition of the planet Mars, which occurred on September 6, 1877. A detailed account of this expedition has been published in the 'Proceedings of the Astronomical Society' for last year; and a general account of their doings has been published in a delightful little book, entitled 'Six Months in Ascension,' by Mrs. Gill.

Before Mr. Gill started I asked him to bring me as complete a collection of the birds and eggs of the island as he might be able conveniently to procure; and as he did not know how to preserve skins, I recommended carbolic acid as a preservative. But it entirely failed, and the first skins that we obtained had

to be thrown away, being entirely destroyed by "hardbacks" and other insects, which seemed positively to thrive on the meat dosed with carbolic acid. However, after the expedition to Boatswain-bird Island, Mr. Unwin, one of the residents on the island, an enthusiastic lover of natural history, kindly offered to skin any birds that might be brought him and to preserve them; and most beautifully has he done so.

The Island of Ascension is merely a large cinder-heap in the midst of the Atlantic, nearly a thousand miles from the nearest point of the mainland of Africa; its exact position is lat. $7^{\circ} 55'$ S., long. $14^{\circ} 25'$ W. The only vegetation exists as a cap to the highest point, which is significantly called "Green Mountain." The water-supply is very precarious, and is carefully looked after by the inhabitants for themselves and their domestic animals, which are donkeys, cattle, sheep, and a few fowls and pigeons. On the more inaccessible parts of the island a few goats, that have run wild, manage to pick up a scanty living; and there are numerous wild cats (*i. e.* cats that have run wild, and their descendants), which, for many months in the year, must live in clover, owing to the enormous supply of young birds spread before them. From the above it will be seen that any land-birds there have not a very favourable chance of multiplying; and Mr. Gill only once saw any Guinea-fowl. Still in past years these birds, which constitute the game of the island, were much more numerous, and the officers stationed there had fair sport for a short time. No reference will be made to the land-birds, which are known to have been transported there; besides the Guinea-fowl mentioned above, a fair number of a species of *Estrela* live amongst the herbage of Green Mountain. Ascension, to the ornithologist, is an island of great interest, from the fact that any notices of stragglers found there may have considerable value as bearing on geographical distribution; and although its resident birds are fairly well known, yet I feel sure that there must be, at periods more or less widely distant, occasional wanderers, the appearance of which it would be of great importance to record. For instance, Mr. Howard Saunders informs me that Mr.

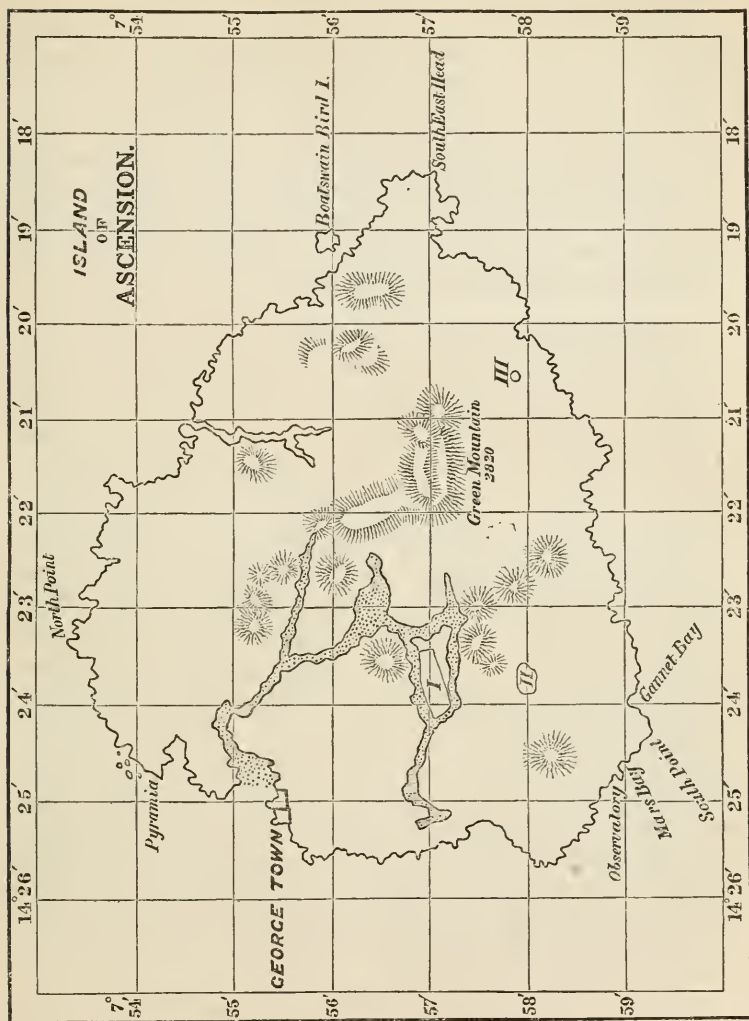
Unwin told him that, about September 1876, several Hawks, which he described as like small Kestrels, frequented the marines' barracks at Georgetown, and might be seen at all hours of the day swooping and dashing round the verandahs. Unfortunately no specimen was secured to determine the species; but the fact is nevertheless of interest, and shows how such outlying posts ought to be carefully watched, as no bird of prey is known on Ascension.

Although I can find no record of their presence, yet I think some of the smaller Skuas (*Stercorarius*) must occasionally visit the island, as they would be able to pick up a most luxurious living amongst the numerous Terns. Richardson's Skua, *Stercorarius crepidatus* (Gm.), is known to visit the African coast down to the Cape of Good Hope.

The summer months in Ascension are from October to January; and the birds' regular breeding-season is from the middle of December to the end of February. There is commonly said to be an irregularity in the case of the Wide-awakes (*Sterna fuliginosa*), which is subsequently mentioned. At this time also the female turtles come up from the sea to deposit their eggs. At this season the island is visited by several species in vast numbers, which come from all sides to breed; and even when the migrants have departed, the surrounding seas never seem to be quite deserted, owing to the number of resident Gannets, Tropic-birds, and Frigate-birds. The latter feed on small fish, with which they seem to fill their scarlet pouches—pelicanwise; while crabs form the staple food of the Tropic-birds, and their powerful beaks show that a good-sized crab would have but little chance with them.

As the birds on the island are not allowed to be ruthlessly destroyed, the consequence is that most of them are very tame, and any specimens wanted can be generally taken by hand.

The accompanying map of the island will show at a glance the positions of the different breeding-places.



I., II., III., Wideawake fairs.

To the north-west are rocky islets, where *Anous stolidus* breeds.

Boatswain-bird Island. On the sides—on ledges, *Anous melanogenys*, *Gygis candida*; in holes, *Phaeton æthereus*, *Ph. flavirostris*, and Petrels. On the top a colony of *Sterna fuliginosa*; scattered indiscriminately *Sula cyanops*, *Sula leucogaster*, *Tachypetes aquilus*.

There are several published accounts of the birds of Ascension, though the greater number of these chiefly relate to "Wideawake fair." The following list, I believe, includes all the most important :—'Proceedings of the Zoological Society,' 1856, p. 144, by Mr. Selater; 'Ibis,' 1868, p. 286, by Commander Sperling; 'Zoologist,' 2nd ser. 1867, p. 979, by Dr. C. Collingwood. As regards the determination of the species I must especially thank Mr. Howard Saunders for the kind way in which he has helped me.

FRIGATE-BIRD (*Tachypetes aquilus*).

Three adult (two ♂ and one ♀), one about three parts fledged, one quite young in down.

This is the largest bird known at Ascension, where the species exists in considerable numbers, and, from the size and peculiar motion of the scarlet pouch when flying, always attracts attention. They are only known to breed on the top of Boatswain-bird Island, a fairly flat tableland, about two acres in extent, covered with guano a few inches deep. This ground they share in company with two species of Gannets and a small colony of Wideawakes, elsewhere mentioned. These birds have considerable difficulty in rising from the ground; but once on the wing the ease and grace of their flight has been commented on by many travellers and sailors. The adult males alone have the scarlet crop. The young are covered with perfectly white down. The about three quarters fledged show a general resemblance to the adults, except that some of the feathers on the middle of the back are tawny, fringed with yellowish white, the same parts being of a glossy black in the adults.

TROPIC- or BOATSWAIN-BIRD (*Phaeton aethereus*).

Four adult, one young in down, one egg.

All the three species of *Phaeton* and some other sea-birds, such as the smaller Skuas, are familiarly called Boatswain-birds by the sailors, owing to the resemblance of the projecting tail-feathers to a marling-spike.

The present species is the largest of the genus, and, from its barred plumage, is probably the most generalized, as an

immature specimen of *P. flavirostris* which I have seen was barred across the back, like the adult of *P. æthereus*, but in the adult of *P. flavirostris* this barring is lost.

P. æthereus breeds in holes on the sides of Boatswain-bird Island, and, like most of the other birds of Ascension, only lays one egg. Curiously enough, male and female are found sitting in their holes side by side, with their heads inwards; and as soon as one has been drawn out it begins to use its beak to considerable purpose.

The specimens brought home were just beginning to change their plumage, and in only one of the adult specimens are the two tail-feathers at all conspicuous; in the last example there is one old feather and a new one, about two thirds the length of the other.

PHAETON FLAVIROSTRIS.

One egg from Boatswain-bird Island.

This species, the best known of the genus, was rather scarce, and Mr. Gill only obtained one adult specimen, which was stolen during transit. They were breeding in holes on the side of Boatswain-bird Island.

The egg is somewhat smaller than that of *P. æthereus*; and this particular specimen is somewhat peculiar, the chocolate markings being collected round the larger end, whereas a specimen in Mr. Saunders's collection that I have seen is uniformly coloured; and this is, I believe, the rule throughout the genus. The fact that these two species of *Phaeton* had both been found nesting in such close proximity, has already been recorded by Messrs. Selater and Salvin (P. Z. S. 1878, p. 651) in one the Reports on the birds collected by H.M.S. 'Challenger,' and is a point of considerable interest, as Ascension is, I believe, the only place as yet known where they both breed.

WIDEAWAKE (*Sterna fuliginosa*).

Two adult, three young, five eggs.

Although several accounts have been written of their principal breeding-place, which is known as "Wideawake fair;" the following facts may be worth mentioning. On Ascen-

sion itself there are three "fairs," marked on the map (p. 275) and numbered according to their size. The first is by far the most important, and probably contains at least twice the number of birds of all the others put together. They begin to breed first at No. III., which is the least disturbed; but the others soon present a scene of great excitement. The fair No. I. was at just about its full height at the end of December, and had been going on for about six weeks before that. The first appearance of these birds in 1877 was during the first week in October; and they continued to arrive daily for about two months. Their annual coming is said to be somewhat irregular; and they are stated to breed three times in two years, concerning which Mr. H. Saunders has kindly allowed me to make the following extract from a letter to him from Mr. Unwin, dated September 5, 1876:—

"The 'Wideawake' visits this island at, and remains for, very uncertain intervals, *not every eight months*; of this I am very certain, from nearly four years' experience. Were not their eggs used so largely for food in this barren place, one could form some idea as to the length of time nature intended them to remain. I may, of course, be 'miles out' in my opinion; but I fancy that, were it possible to take away the eggs immediately they are laid, the birds would not leave for a very considerable period. Last year they remained months longer than usual, owing to a very unusual downpour of rain, which flooded their breeding-ground and killed thousands of young birds. They left about May and were back in August. It seems to me that no matter how often an egg is taken, another is laid, and the old birds still persevere in trying to rear a young one."

They have a considerable settlement on the top of Boatswain-bird Island; but the numbers are insignificant when compared with even that of the smallest fair. Each bird normally lays only one egg; but when constantly plundered the same bird lays several times; and those who collect get, in a good morning's work, about 200 dozen eggs. This fairly shows the number of birds and their closeness together. The eggs are said not to be so good as Plovers' eggs, having a slight fishy

flavour. The eggs are generally of a white or bluish-white ground-colour; but the markings vary to every possible shade of red, brown, and purple. Only recently has it been ascertained how these eggs may be distinguished from those of *Anous stolidus* (see notice of that bird). The series brought home is a very instructive one.

The youngest still retains on its beak the shell-breaking knob; the down on the back is of a uniform brown, but each plumule is tipped with white; the breast is of pure white down; the primaries, which are just visible, show that they intend to be black, transversely barred with white. On emerging from the downy state the young becomes sooty brown on the underparts; but in course of time this changes to the full white of the adult. The next in age is about a quarter fledged, and shows very plainly the transverse markings right across the back and wings. The third is nearly fledged; and the markings on the wings begin to be less conspicuous, whilst those on the back remain. The rest are in perfectly adult plumage, and are probably just completing their moult, as I find an unequal length in their new outer tail-feathers in both my specimens. These birds after the breeding-season scatter themselves over the waters of the North and South Atlantic, occasionally straggling as far as our own coast.

They are wonderfully powerful flyers, and must at times be for many days on the wing. Even whilst catering for their young they are supposed to travel great distances, as Mr. Gill, whilst one day at the largest "fair," caught a bird in his hand with a small fish in its beak which was not recognized as an inhabitant of Ascension waters. This bird must have been fishing at some distance.

WHITE NODDY (*Gygis candida*).

Two adult birds, three eggs.

The birds are in fully adult plumage, and appear to have lately moulted, only the tips of the wings being slightly abraded. This beautiful bird is, in many respects, of peculiar interest; and its geographical position here was first established by skins brought home by the 'Challenger'

(Saunders, P. Z. S. 1877, p. 797). The eggs of this form, which are somewhat large for the size of the bird, differ from those of all other Terns, being of a much darker ground-colour, and very distinctly scrolled. They were found on ledges on the side of Boatswain-bird Island; and each bird had but one egg. There were not many pairs; and they kept quite distinct from each other and from the enormous number of lesser Noddies (*Anous melanogenys*).

NODDY (*Anous stolidus*).

Two adults, nine eggs.

These birds were not numerous, and only bred in company with a few Gannets on some small rocky islets off the north-west corner of Ascension, each pair keeping to themselves and to the care of their solitary egg.

The eggs are rough and dull, and may be easily distinguished from Wideawakes', in which the surface is smooth and shining, the ground-colour being in the *Anous* more cream-coloured; and the markings are less varied, generally small, and situated at the larger end of the egg.

ANOUS MELANOGENYS.

Fourteen adults, one egg.

These birds, by far the most interesting portion of the collection, require some detailed notice. The first obtained by Mr. Gill were shot flying over Mars Bay. Not knowing what they were, he showed them to Mr. Unwin, who said that they were *Sterna leucocapilla*, and that they had never been known to visit the island before. Had they done so, Mr. Unwin would have been sure to have noticed them. But when, on the 4th of January, 1878, Mr. Gill visited Boatswain-bird Island, the face of the rock was literally covered, and looked quite black with the birds, which were then in the height of their breeding-season, and almost every available ledge was occupied by its row of birds, each pair by their single egg. Now just about the same time the previous year Mr. Unwin visited the island, and not a single bird was then there; so it seems as if this were their first visit to the island. The birds brought home were all shot at Mars Bay early in

December; and most of them show signs of beginning to moult, and so look rather dingy, the new feathers looking quite black in contrast with the old faded ones.

The bird is plainly *Anous melanogenys* (Gray), and not *A. leucocapillus* (Gould), the latter being, in fact, a somewhat doubtful species, and further material being much needed to clear up the point.

Anous melanogenys has an extensive range, reaching from the coast of Honduras down to Australia and Polynesia; but until recently it has generally been confounded with *A. tenuirostris* (Temm.), a species which has *grey*, instead of *dark black* lores (Saunders, P. Z. S. 1876, p. 670, pl. lxi.). The egg is similar to that of *Anous stolidus*, but smaller and rather more pointed.

BOOBY (*Sula leucogastra*).

Two adults, two young (about half fledged), two eggs.

This well-known bird requires little mention. It was found breeding in considerable numbers on the top of Boatswain-bird Island, and a few pairs in company with the Noddies (*Anous stolidus*) on the isolated rocklets before mentioned. The only interest attaching to these is that, in company with the other inhabitants of Boatswain-bird Island, they are depositing a store of guano which may, at some far future period, return to our Government some of the money which has been spent on this naval station; and had it not been that the Governor of Ascension went to prospect, and took Mr. Gill with him, this present collection of skins might never have been formed. The adults are in very fine plumage, and were taken on Boatswain-bird Island, as also the two young birds. Both of these are rather more than half-grown, and are very like their parents, except that where the latter are white they are of a dull dusky brown, the tips of the feathers, however, being pretty regularly sprinkled with greyish white.

SULA CYANOPS.

Two adults, three young, quarter to half fledged.

This bird is rather larger than the Booby, *Sula leucogastra*, and is far more like our common Gannet. They were breed-

ing in the same places as the Boobies. The young specimens brought home show no points of special interest, the series being perfectly gradual; and they do not pass through the extraordinary changes of plumage our English Gannets do.

PETREL (*Procellaria melanogastra?*).

One egg.

Found lying in a crevice on the rocks during the ascent of Boatswain-bird Island. This egg being very hard-set, Mr. Unwin very kindly injected it with arsenic; and it is now in spirit. On showing it to Mr. Salvin he confirmed my supposition that it was the egg of one of the Swallow-Petrels (*Procellaria* or *Oceanites*); but no Petrel has been recorded from the island, which is not, however, to be wondered at, considering their crepuscular habits.

XXII.—*Note on the Milvus govinda of Sykes.*

By W. EDWIN BROOKS.

In the Zoological Society's 'Proceedings' for 1832, Col. Sykes described his *Milvus govinda* as follows:—

“*Milv.* capite, nuchâ, corporeque subtus rufescenti-brunneis, plumis in medio fusco lineatis; dorso, alis, caudâque satis furcatâ saturatè brunneis, illarum pteromatibus pallidioribus, hâc fusco obsoletè fasciatâ. Longitudo corporis 26 unc., caudæ 11.”—*P. Z. S.* part ii. (1832), pp. 80, 81.

The above is the original description of this Kite; and no Indian Kite but *M. melanotis* ever reaches the size indicated by Sykes. There are only two of Sykes's Kites in the Indian Museum at Kensington; and they are said to be his types. I have examined them; and the larger of the two is, beyond all doubt, *M. melanotis*, T. & S., in immature plumage, with an occasional red feather appearing here and there. The lesser bird of the two is of an entirely different species, and is what I call *Milvus affinis* of Gould.

Sykes's total length of 26 inches, and the tail 11 inches, could never have belonged to the lesser bird. We see that Sykes obtained both birds; but his description carries more weight